IN THE CLAIMS:

This Listing of Claims replaces all prior Listings and versions of claims in the above-identified application.

Listing of Claims

1. (Currently Amended) A method to reduce ~~protect a mammal from a disease characterized by~~ eosinophilia associated with an inflammatory response in a mammal, said method consisting of administering a formulation consisting of a *Mycobacterium leprae* heat shock protein-65 and ~~at least one~~ a pharmaceutically acceptable excipient to a mammal ~~having~~ that has said eosinophilia ~~disease~~.

2. (Currently Amended) The method of Claim 1, wherein said ~~disease~~ inflammatory response is associated with increased production of a cytokine selected from the group consisting of interleukin-4 (IL-4), interleukin-5 (IL-5), interleukin-6 (IL-6), interleukin-9 (IL-9), interleukin-10 (IL-10), interleukin-13 (IL-13) and interleukin-15 (IL-15).

3. (Cancelled)

4. (Currently Amended) The method of Claim 1, wherein said mammal has a ~~disease is a~~ respiratory disease characterized by eosinophilic airway inflammation and airway hyperresponsiveness.

5. (Cancelled)

6. (Currently Amended) The method of Claim 1, wherein said ~~disease~~ inflammatory response is associated with sensitization to an allergen.

7. (Currently Amended) The method of Claim 1, wherein said ~~disease is~~ mammal has allergic asthma.

8-13. (Cancelled)

14. (Previously Presented) The method of Claim 1, wherein said formulation is administered by at least one route selected from the group consisting of oral, nasal, topical, inhaled, transdermal, rectal and parenteral routes.

15. (Previously Presented) The method of Claim 1, wherein said formulation is administered by a route selected from the group consisting of inhaled and nasal routes.

16. (Currently Amended) The method of Claim 1, wherein said heat shock protein reduces ~~eosinophilia~~ airway hyperresponsiveness in said mammal.

17. (Original) The method of Claim 1, wherein said heat shock protein reduces eosinophil blood counts in said mammal to between about 0 and about 300 cells/mm^3.

18. (Original) The method of Claim 1, wherein said heat shock protein reduces eosinophil blood counts in said mammal to between about 0 and about 100 cells/mm^3.

19. (Original) The method of Claim 1, wherein said heat shock protein reduces eosinophil blood counts in said mammal to between about 0% and about 3% of total white blood cells in said mammal.

20. (Original) The method of Claim 1, wherein said heat shock protein induces interferon-γ (IFN-γ) production by T lymphocytes in said mammal.

21. (Original) The method of Claim 1, wherein said heat shock protein suppresses interleukin-4 (IL-4) and interleukin-5 (IL-5) production by T lymphocytes in said mammal.

22. (Original) The method of Claim 1, wherein said heat shock protein decreases airway methacholine responsiveness in said mammal.

23. (Original) The method of Claim 1, wherein said heat shock protein reduces airflow limitation in said mammal such that an FEV_1/FVC value of said mammal is at least about 80%.

24. (Original) The method of Claim 1, wherein said heat shock protein results in an improvement in a mammal's $PC_{20methacholine}FEV_1$ value such that the $PC_{20methacholine}FEV_1$ value obtained before administration of said heat shock protein when the mammal is provoked with a first concentration of methacholine is the same as the $PC_{20methacholine}FEV_1$ value obtained after administration of said heat shock protein when the mammal is provoked with double the amount of the first concentration of methacholine.

25. (Original) The method of Claim 24, wherein said first concentration of methacholine is between about 0.01 mg/ml and about 8 mg/ml.

26. (Original) The method of Claim 1, wherein said heat shock protein improves a mammal's FEV_1 by between about 5% and about 100% of said mammal's predicted FEV_1.

27. (Original) The method of Claim 1, wherein said heat shock protein reduces airflow limitation in said mammal such that an R_L value of said mammal is reduced by at least about 20%.

28. (Original) The method of Claim 1, wherein said heat shock protein is administered in an amount between about 0.1 microgram x kilogram^{-1} and about 10 milligram x kilogram^{-1} body weight of a mammal.

29. (Original) The method of Claim 1, wherein said heat shock protein is administered in an amount between about 1 microgram x kilogram^{-1} and about 1 milligram x kilogram^{-1} body weight of a mammal.

30. (Original) The method of Claim 1, wherein said heat shock protein is administered in an amount between about 0.1 milligram x kilogram^{-1} and about 5 milligram x kilogram^{-1} body weight of a mammal, if said heat shock protein is delivered by aerosol.

31. (Original) The method of Claim 1, wherein said heat shock protein is administered in an amount between about 0.1 microgram x kilogram^{-1} and about 10 microgram x kilogram^{-1} body weight of a mammal, if said heat shock protein is delivered parenterally.

32. (Cancelled)

33. (Original) The method of Claim 1, wherein said mammal is a human.

34-38. (Cancelled)

39. (Currently Amended) A method to ~~protect a mammal from a disease characterized by~~ reduce airway hyperresponsiveness associated with an inflammatory response in a mammal, said method consisting of administering a formulation consisting of a *Mycobacterium leprae* heat shock protein-65 and ~~at least one~~ a pharmaceutically acceptable excipient to a mammal, wherein administration of said formulation reduces airway hyperresponsiveness in said mammal ~~having said disease~~.

40. (Currently Amended) A method to ~~protect a mammal from an inflammatory disease characterized by~~ reduce a Th2-type immune response in a mammal, said method consisting of administering a formulation consisting of a *Mycobacterium leprae* heat shock protein-65 and ~~at least one~~ a pharmaceutically acceptable excipient to a mammal, wherein

administration of said formulation reduces said Th2-type immune response in said mammal ~~having said disease~~.

41-52. (Cancelled)

53. (Currently Amended) A method to ~~protect a mammal from a disease characterized by~~ reduce eosinophilia associated with an inflammatory response in a mammal, said method consisting of administering a formulation consisting of a *Mycobacterium leprae* heat shock protein-65 to a mammal ~~having~~ that has said eosinophilia ~~disease~~.

54. (New) A method to induce interferon-γ (IFN-γ) production by T lymphocytes and reduce production of interleukin-4 (IL-4) and interleukin-5 (IL-5) by T lymphocytes in a mammal consisting of administering a formulation consisting of a *Mycobacterium leprae* heat shock protein-65 to said mammal.